

2. (Amended) A chemical mechanical polishing pad having a plurality of reliefs in a main polishing surface for determining wear of the pad, wherein the reliefs comprise through-holes in the pad.

3. The pad of claim 1, wherein the reliefs extend partially through a thickness of the pad.

4. (Amended) A chemical mechanical polishing pad having a plurality of reliefs in a main polishing surface for determining wear of the pad, wherein the reliefs have a rectangular, square, triangular or round shape.

5. (Amended) A method for measuring wear of the thickness of a chemical mechanical polishing pad, the method comprising:

providing a plurality of reliefs in a main polishing surface of the pad; and  
~~measuring a distance from the main polishing surface to a bottom surface of~~  
each of a plurality of the reliefs, wherein the reliefs are disposed in a predetermined pattern such that the wear of the pad is determinable as a function of pad radius.

6. The method of claim 5, comprising determining total pad wear based on the measured distances.

7. (Amended) A method for measuring wear of the thickness of a chemical mechanical polishing pad, comprising:

providing a plurality of reliefs in a main polishing surface of the pad, the reliefs being disposed in a predetermined pattern;

measuring a distance from the main polishing surface to a bottom surface of each of a plurality of the reliefs, wherein the pad has a radius; and

determining wear of the pad as a function of the pad radius, based on the relief pattern and the measured distances, to generate a pad wear profile.

8. (Amended) A method for measuring wear of the thickness of a chemical mechanical polishing pad, comprising:

providing a plurality of reliefs in a main polishing surface of the pad, the reliefs being disposed in a predetermined pattern;

measuring a distance from the main polishing surface to a bottom surface of each of a plurality of the reliefs; and

determining a wear rate of a first portion of the main polishing surface of the pad based on the relief pattern and the measured distances.

g. <sup>5</sup> (Amended) The method of claim <sup>3</sup> 7, wherein the pad wear is responsive to a process parameter, and further comprising altering the process parameter based on the pad wear profile.

10. The method of claim 9, comprising altering the process parameter based on the pad wear profile such that the pad wear is approximately equal at each of the reliefs.

A 11. The method of claim 8, comprising polishing an article using a second portion of the pad separate from the first portion when the wear rate of the first portion is significantly greater than a predetermined value.

12. The method of claim 8, wherein the first portion of the pad is used to polish an article at a predetermined polishing rate, and wherein the polishing rate is responsive to a process parameter and the wear rate, the method comprising altering the process parameter based on the wear rate such that the polishing rate is maintained.

13. The method of claim 9, wherein the process parameter comprises conditioning of the pad.

14. A chemical mechanical polishing pad having a plurality of reliefs in a main polishing surface for determining wear of the pad, wherein the reliefs comprise through-holes in the pad or extend partially through a thickness of the pad.

---

Please add the following new claims:

---

A<sup>2</sup> 15. (New) A chemical mechanical polishing pad having a plurality of reliefs disposed in a predetermined pattern thereon, wherein the predetermined pattern is configured to indicate the wear of at least one region of the pad with respect to the pad radius.

16. (New) The pad of claim 15, wherein the predetermined pattern is configured to enable monitoring of the pad wear to discern whether two or more regions of the pad are wearing at different rates.

17. (New) The pad of claim 15, wherein the predetermined pattern is selected from inline, spiral, non-symmetrical pseudo-random, and combinations thereof.

18. (New) The pad of claim 2, wherein the reliefs are distributed in a predetermined pattern to enable monitoring the pad wear as a function of pad radius.

19. (New) The pad of claim 18, wherein the predetermined pattern is configured to enable monitoring of the pad wear to discern whether two or more regions of the pad are wearing at different rates.

20. (New) The pad of claim 18, wherein at least some of the reliefs are individually monitored to establish a wear pattern specific to a pattern of at least some of the reliefs.

#### REMARKS

This is intended as a full and complete response to the Office Action dated January 15, 2002, having a shortened statutory period for response set to expire on April 15, 2002. Please enter the following amendments and reconsider the claims pending in the application for reasons discussed below. Claims 1, 2, 4-5, and 7-9 have been amended herein to place the case in condition for allowance. Claims 15-20 have been added herein and do not include new matter.

Claims 1, 3, 5 and 6 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,108,909 (*Tzeng*). The Examiner states that that *Tzeng* discloses an *in-situ* monitoring means for measuring the difference between a point depression in a polishing pad and a point on a land portion of the polishing pad. The Examiner asserts that depression in a polishing pad can take many forms including groove, hole,